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> ASUS TUF Gaming B760M-PLUS WiFi II Intel B760 LGA 1700 mATX Motherboard User Manual

ASUS TUF GAMING B760M-PLUS WIFI II

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Model: TUF GAMING B760M-PLUS WIFI II

PRODUCT OVERVIEW

The ASUS TUF GAMING B760M-PLUS WIFI II motherboard is engineered to provide robust performance and durability for gaming and demanding computing tasks. It integrates essential elements of the latest Intel processors with game-ready features and a comprehensive cooling system.



Image: ASUS TUF Gaming B760M-PLUS WiFi II Motherboard, showing the board itself, its retail packaging, and the included Wi-Fi

antenna.

Key Features:

- **Intel LGA 1700 Socket:** Compatible with 14th, 13th, and 12th Gen Intel processors.
- **Enhanced Power Solution:** Features 12+1 DrMOS power stages, a six-layer PCB, 8+8 ProCool sockets, military-grade TUF components, and Digi+ VRM for maximum durability and stable power delivery.
- **Comprehensive Cooling:** Equipped with enlarged VRM heatsinks, M.2 heatsinks, a PCH heatsink, hybrid fan headers, and Fan Xpert 2+ for efficient heat dissipation.
- **Latest Connectivity:** Includes a PCIe 5.0 slot, three PCIe 4.0 M.2 slots, a rear USB 20Gbps Type-C port, a front panel header for USB 10Gbps Type-C, and Thunderbolt (USB4) header support.
- **Optimized for Online Gaming:** Features WiFi 6E, Realtek 2.5Gb Ethernet, and TUF LANGuard for reliable and fast network performance.
- **Two-way AI Noise-Cancelation:** Reduces background noise from both microphone input and audio output, ensuring clear communication during gaming or video conferences.

Better, Faster & More



12+1 DR MOS POWER STAGES
(RATED UP TO 50A) WITH
ENLARGED VRM HEATSINKS



PCIe® 5.0 FOR GRAPHICS CARDS



7800+ MT/S, AEMP II



USB 20Gbps (USB Type-C®) and front
USB 10Gbps (USB Type-C®) connector



PCIe Q-RELEASE



With Q-Antenna

Image: Visual representation of the motherboard's core features, including power delivery, PCIe 5.0 support, DDR5 memory, USB 20Gbps connectivity, PCIe Q-Release, and WiFi 6E with Q-Antenna.

SETUP GUIDE

1. Unboxing and Contents

Before beginning installation, carefully unbox your motherboard and verify all components are present. The package typically includes the motherboard, Wi-Fi antenna, SATA cables, M.2 screws, and documentation.



Image: Display of the motherboard box contents, including the motherboard, manual, SATA cables, M.2 screws, and TUF Gaming stickers.

2. Component Installation

Ensure your system is powered off and disconnected from the power source before installing components. Handle the motherboard by its edges to avoid static discharge.

- CPU Installation (LGA 1700):

Carefully open the CPU socket retention arm. Align the triangular mark on the CPU with the mark on the socket. Gently place the CPU into the socket without forcing it. Close the retention arm to secure the CPU. Refer to the image below for the CPU socket area.



Image: Detailed layout of the motherboard highlighting the CPU socket (LGA 1700), 4 DIMM slots for DDR5 memory, 3 M.2 NVMe SSD slots, and the PCIe 5.0 x16 slot.

- **DDR5 Memory Installation:**

Open the clips on the DDR5 DIMM slots. Align the memory module's notch with the key in the slot. Press down firmly on both ends of the memory module until the clips snap into place. This motherboard supports up to 192GB of DDR5 memory.

- **M.2 SSD Installation:**

Locate the M.2 slots. This motherboard features three PCIe 4.0 M.2 slots. Remove the M.2 heatsink if present. Insert the M.2 SSD into the slot at an angle, then gently push it down and secure it with the provided M.2 screw or Q-Latch mechanism. Reinstall the heatsink if applicable.

- **PCIe Card Installation:**

Insert your graphics card into the PCIe 5.0 x16 slot. Ensure it is seated firmly and secured with the case's retention clip. Additional PCIe 4.0 slots are available for other expansion cards.

3. Power Connections

Connect the 24-pin ATX power connector and the 8+8-pin ProCool CPU power connectors from your power supply to the corresponding ports on the motherboard. Ensure all connections are secure.

4. Cooling System Setup

Connect your CPU cooler fan to the CPU_FAN header. Connect case fans to the available 4-pin fan headers. This motherboard has 6 4-pin fan headers for comprehensive cooling management.

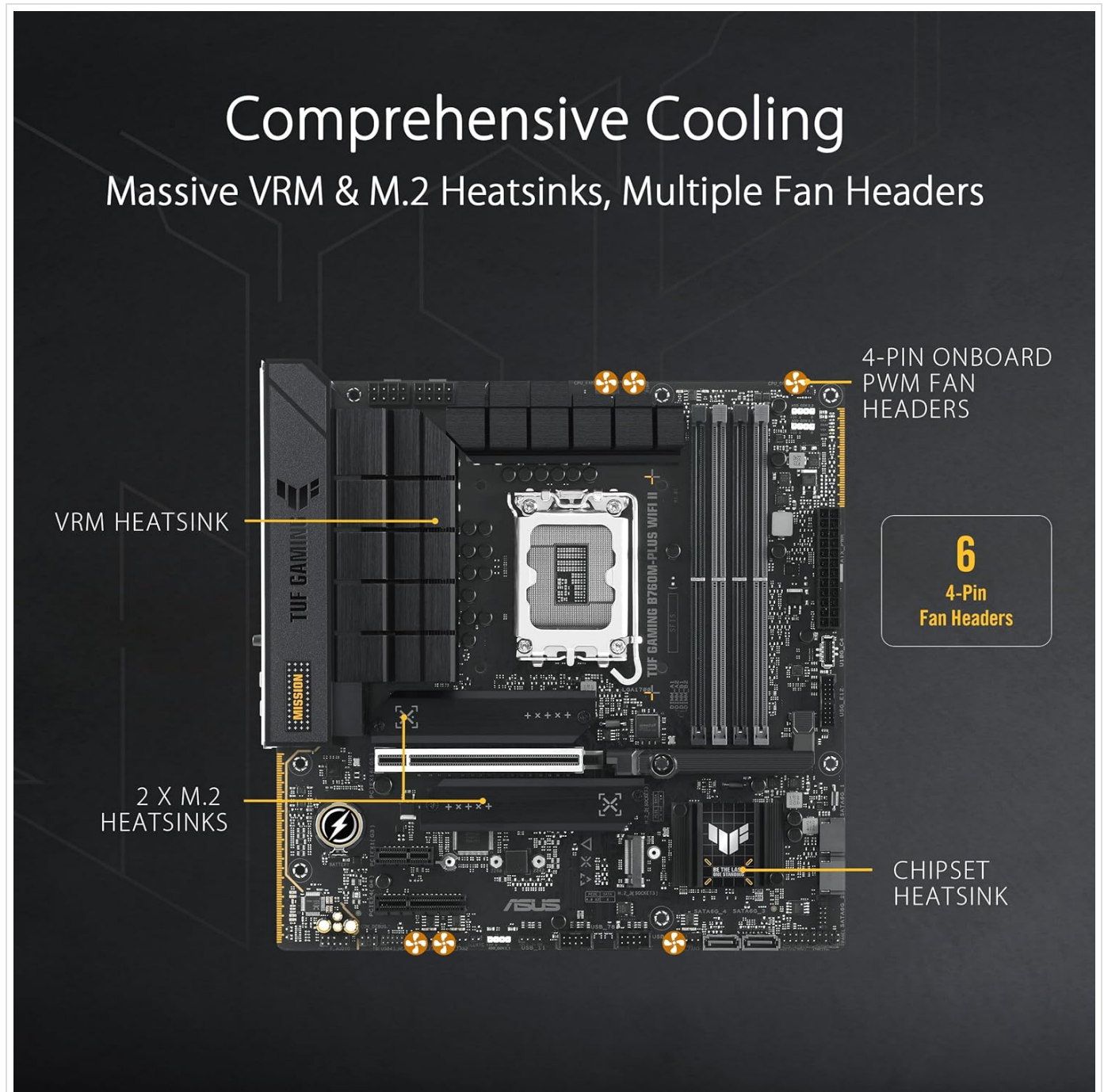


Image: Overview of the motherboard's cooling features, including the VRM heatsink, two M.2 heatsinks, the Chipset heatsink, and the locations of the 6 4-pin fan headers.

5. External Connections (Rear I/O)

Connect your peripherals to the rear I/O panel. This includes:

- DisplayPort (DP) and HDMI for video output.
- Various USB ports: USB 2.0, USB 5Gbps, USB 10Gbps Type-C, and USB 20Gbps Type-C.

- 2.5Gb Ethernet port for wired network connection.
- Wi-Fi 6E antenna connectors.
- Audio jacks for speakers, headphones, and microphone.

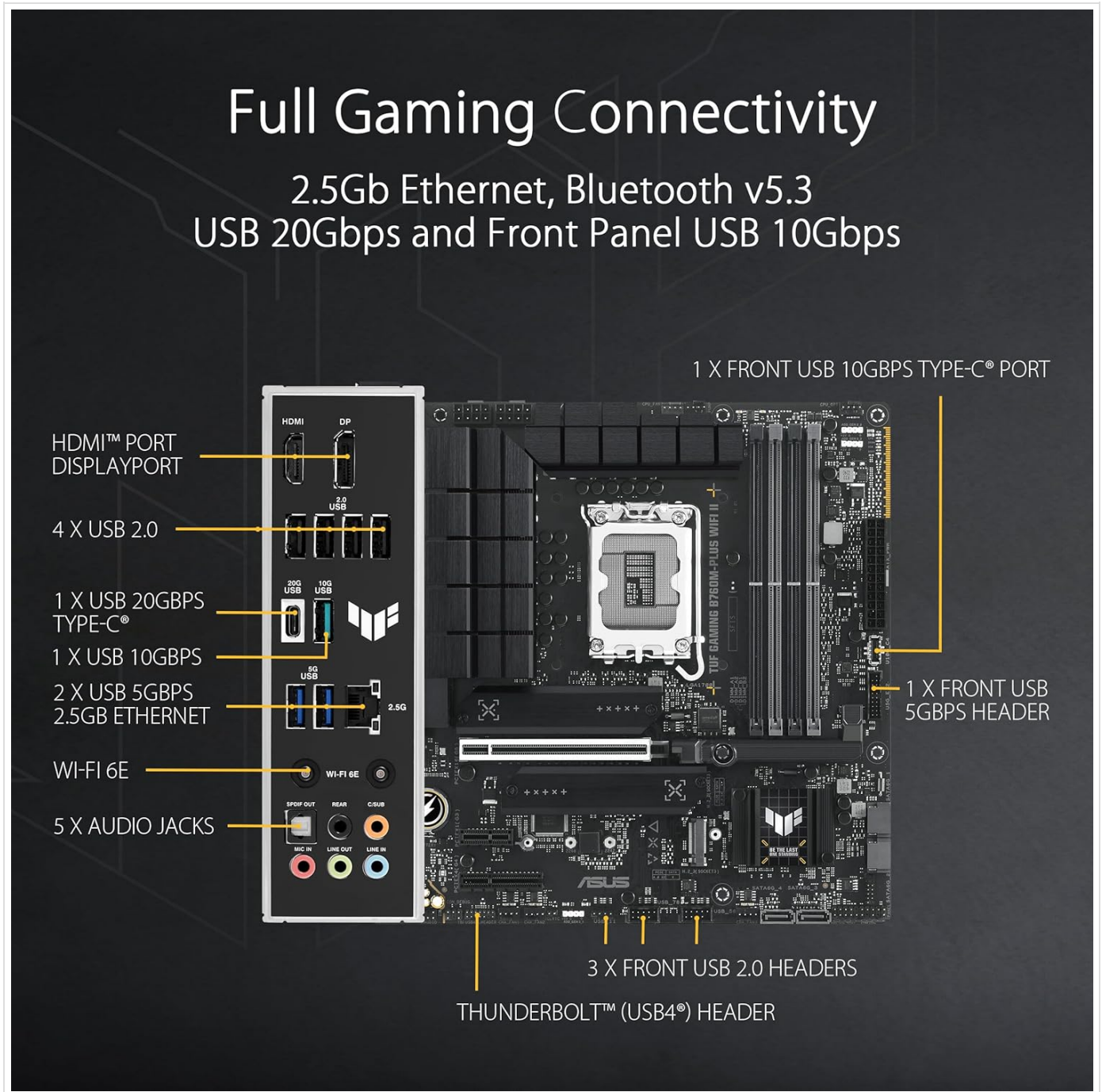


Image: Detailed diagram illustrating the full gaming connectivity options, including the rear I/O panel with HDMI, DisplayPort, various USB ports (20Gbps Type-C, 10Gbps, 5Gbps, 2.0), 2.5Gb Ethernet, Wi-Fi 6E antenna connectors, and audio jacks. Also shows front panel USB headers.

Install the included Wi-Fi antenna to the designated connectors on the rear I/O panel for optimal wireless performance.



Image: The ASUS TUF Gaming B760M-PLUS WiFi II Motherboard shown with its external Wi-Fi antenna connected to the rear I/O ports.

OPERATING INSTRUCTIONS

1. Initial Boot and BIOS Setup

After assembling your system, connect it to a monitor, keyboard, and mouse. Power on the system. Press the **DEL** or **F2** key during startup to enter the BIOS/UEFI setup utility. Here you can:

- Set the system date and time.
- Configure boot order.
- Enable XMP/EXPO for memory profiles.
- Adjust fan curves using Fan Xpert 2+.
- Update BIOS firmware (recommended for optimal compatibility and performance).

2. Operating System and Driver Installation

Install your preferred operating system (Windows 10 or Windows 11 are supported). After OS installation, install the necessary drivers for the motherboard components. These include:

- Chipset drivers.
- Graphics drivers (if using integrated graphics or a dedicated GPU).
- Audio drivers.
- LAN (Ethernet) drivers.
- Wi-Fi and Bluetooth drivers.
- USB drivers.

Drivers can typically be found on the ASUS support website for your specific motherboard model. Keeping drivers updated is crucial for system stability and performance.

3. Network Connectivity

Utilize the integrated Realtek 2.5Gb Ethernet for high-speed wired network access. For wireless connectivity, the Wi-Fi 6E module provides fast and stable connections. Ensure the external antenna is properly connected for optimal signal strength.

4. Audio Features

The motherboard supports Two-way AI Noise-Cancelation, which can be configured via ASUS software. This feature enhances communication clarity by reducing background noise from both your microphone and incoming audio.

MAINTENANCE

- **Dust Removal:** Regularly clean dust from the motherboard and components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Driver Updates:** Periodically check the ASUS support website for updated drivers and utilities for your motherboard. Updated drivers can improve performance, stability, and compatibility.
- **BIOS Updates:** Keep your BIOS firmware updated. BIOS updates often include performance enhancements, bug fixes, and support for new hardware. Follow the instructions provided by ASUS for safe BIOS updates.
- **Component Checks:** Occasionally inspect all cable connections (power, SATA, front panel) to ensure they are securely seated.

TROUBLESHOOTING

- **System Not Powering On:**

Verify all power cables (24-pin ATX, 8+8-pin CPU) are securely connected to the motherboard and power supply. Ensure the power supply switch is in the ON position and the wall outlet is functional.
- **No Display Output:**

Check that your monitor is connected to the correct video output port (either on the motherboard for integrated graphics or on your dedicated graphics card). Reseat the graphics card and memory modules. Try booting with only one memory stick.
- **System Instability/Crashes (BSOD):**

This can often be caused by outdated drivers or software conflicts. Ensure all drivers are up-to-date from the ASUS website. Test memory stability using diagnostic tools. Check CPU and GPU temperatures to rule out overheating.
- **Network Connectivity Issues:**

For wired connections, verify the Ethernet cable is properly connected and the LAN driver is installed. For Wi-Fi, ensure the antenna is attached and Wi-Fi drivers are installed. Check router settings and network cables.
- **Peripheral Not Detected:**

Try connecting the peripheral to a different USB port. Ensure the necessary drivers for the peripheral are installed. Check the motherboard's front panel headers if using front USB ports.

SPECIFICATIONS

Feature	Detail
Brand	ASUS

Model Name	TUF GAMING B760M-PLUS WIFI II
CPU Socket	LGA 1700
Compatible Processors	Intel Core 14th, 13th, & 12th Gen
Chipset Type	Intel B760
RAM Memory Technology	DDR5
Memory Clock Speed	7800 MHz
Memory Storage Capacity (Max)	192 GB
PCIe Slots	1x PCIe 5.0 x16, 2x PCIe 4.0 x16 (physical x4)
M.2 Slots	3x PCIe 4.0 M.2 slots
SATA Ports	4x SATA 6Gbps
USB Connectivity	Rear: USB 20Gbps Type-C, USB 10Gbps, USB 5Gbps, USB 2.0. Front Panel Headers: USB 10Gbps Type-C, USB 5Gbps, USB 2.0. Thunderbolt (USB4) header support.
Ethernet	Realtek 2.5Gb Ethernet
Wireless Connectivity	WiFi 6E, Bluetooth v5.3
Audio	High Definition Audio CODEC with Two-way AI Noise-Cancelation
Form Factor	mATX
Product Dimensions	10.83 x 10.83 x 2.66 inches
Item Weight	3.31 pounds
Supported Platforms	Windows 11, Windows 10

WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product or visit the official ASUS support website. ASUS provides comprehensive support resources, including:

- Online FAQs and knowledge base.
- Driver and utility downloads.
- BIOS updates.
- Technical support contact information.

You can find the latest support information and contact details on the [ASUS Support Website](#).